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C*-algebras generated by mappings

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Abstract

Let X be an infinite set and let φ be a given mapping of it into itself. We consider the C*-algebra C φ (X) with a single generating element T φ on Hilbert space l 2(X). We show that C φ (X) is isomorphic to C *-algebra generated by a finite set of partial isometries of a special kind if T φ is continuous. We give the full description of C φ (X) in case φ is injective mapping. Also we give the examples of C φ (X) if φ is not injective. © 2008 MAIK Nauka.

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Keywords

C*-algebra, Partial isometry